

CLAIMS

What is claimed is:

1. A method comprising:

- 5 receiving an indicator of a brightness level for a backlight, said backlight having a voltage inverter; and
selecting either a continuous mode of operation for the voltage inverter or a burst mode of operation for the voltage inverter based at least in part on the indicator.

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2. The method of claim 1 further comprising:

- comparing the brightness level to a threshold brightness level;
if the brightness level is above the threshold brightness level, setting the indicator to indicate a high brightness level; and

15 if the brightness level is below the threshold brightness level, setting the indicator to indicate a low brightness level.

3. The method of claim 2 wherein the threshold brightness level comprises 60 candela per meter squared.

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4. The method of claim 2 wherein the threshold brightness level corresponds to an intersection of an efficiency curve of the voltage inverter in the continuous mode and an efficiency curve of the voltage inverter in the burst mode.

25 5. The method of claim 4 further comprising:

locating the intersection.

6. The method of claim 1 further comprising:

setting the brightness level for the backlight based on at least one of a user input and an operating system control.

7. The method of claim 1 wherein selecting either the continuous mode or the burst mode comprises:

selecting the continuous mode if the indicator indicates a brightness level above a threshold; and

5 selecting the burst mode if the indicator indicates a brightness level below the threshold.

8. An apparatus comprising:

10 an inverter component for a backlight; and

a controller for the inverter component, said controller to operate the inverter component in either a continuous mode or a burst mode based at least in part on a brightness level for the backlight.

15 9. The apparatus of claim 8 wherein the inverter component comprises:

a first switch coupled between a first node and a second node, said first node to couple to a voltage source;

a second switch coupled between the second node and a third node, said third node to couple to a ground;

20 a third switch coupled between the first node and a fourth node;

a fourth switch coupled between the third node and the fourth node;

a first capacitive element coupled between the second node and a fifth node;

a transformer having a first coil coupled between the second node and the fifth node, and a second coil to couple a sixth node to a first terminal of the

25 backlight; and

a second capacitive element to couple the sixth node to a second terminal of the backlight.

30 10. The apparatus of claim 9 wherein the first, second, third, and fourth switches comprise field effect transistors (FETs).

11. The apparatus of claim 9 wherein the controller is to open and close the first, second, third, and fourth switches.
12. The apparatus of claim 9 wherein, in the continuous mode, the first and fourth switches are switched in phase, the second and third switches are switched in phase, and the first and fourth switches are switched 180 degrees out of phase with the second and third switches.
13. The apparatus of claim 9 wherein, in the burst mode, the first, second, third, and fourth switches are closed during a resting duration.
14. The apparatus of claim 8 wherein the controller comprises:
an indicator pin to receive an indication of the brightness level of the backlight.
15. A machine readable medium having stored thereon machine executable instructions that, when executed, implement a method comprising:
receiving an indicator of a brightness level for a backlight, said backlight having a voltage inverter; and
selecting either a continuous mode of operation for the voltage inverter or a burst mode of operation for the voltage inverter based at least in part on the indicator.
16. The machine readable medium of claim 15 wherein the method further comprises:
comparing the brightness level to a threshold brightness level;
if the brightness level is above the threshold brightness level, setting the indicator to indicate a high brightness level; and
if the brightness level is below the threshold brightness level, setting the indicator to indicate a low brightness level.

17. The machine readable medium of claim 16 wherein the threshold brightness level comprises 60 candela per meter squared.
- 5 18. The machine readable medium of claim 16 wherein the threshold brightness level corresponds to an intersection of an efficiency curve of the voltage inverter in the continuous mode and an efficiency curve of the voltage inverter in the burst mode.
- 10 19. The machine readable medium of claim 18 wherein the method further comprises:
 locating the intersection.
- 15 20. The machine readable medium of claim 15 wherein the method further comprises:
 setting the brightness level for the backlight based on at least one of a user input and an operating system control.
- 20 21. The machine readable medium of claim 15 wherein selecting either the continuous mode or the burst mode comprises:
 selecting the continuous mode if the indicator indicates a brightness level above a threshold; and
 selecting the burst mode if the indicator indicates a brightness level below the threshold.
- 25 22. A system comprising:
 a cold cathode florescent lamp (CCFL); and
 a voltage inverter comprising
 an inverter component for the CCFL, and

a controller for the inverter component, said controller to operate the inverter component in either a continuous mode or a burst mode based at least in part on a brightness level for the CCFL.

5 23. The system of claim 22 wherein the inverter component comprises:

 a first switch coupled between a first node and a second node, said first node to couple to a voltage source;

 a second switch coupled between the second node and a third node, said third node to couple to a ground;

10 a third switch coupled between the first node and a fourth node;

 a fourth switch coupled between the third node and the fourth node;

 a first capacitive element coupled between the second node and a fifth node;

 a transformer having a first coil coupled between the second node and the fifth node, and a second coil to couple a sixth node to a first terminal of the

15 backlight; and

 a second capacitive element to couple the sixth node to a second terminal of the backlight.

24. The system of claim 23 wherein the controller is to open and close the first,

20 second, third, and fourth switches.

25. The system of claim 23 wherein, in the continuous mode, the first and fourth switches are switched in phase, the second and third switches are switched in phase, and the first and fourth switches are switched 180 degrees out of phase with

25 the second and third switches.

26. The system of claim 23 wherein, in the burst mode, the first, second, third, and fourth switches are closed during a resting duration.

27. The system of claim 22 wherein the controller comprises:

an indicator pin to receive an indication of the brightness level of the backlight.